Modal Primitivism

Louis deRosset

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This paper is an attempt to articulate and argue for a position called modal primitivism. Modal primitivism is a view about necessity and possibility. Necessity and possibility are part of the fundamental structure of the universe, and some modal claims, at least, would appear in even the most basic overall description of that structure. Modal primitivism is also a view about the relation between modal facts and non-modal facts.\footnote{The notion of a fact is a notorious philosophical football, getting different glosses by different philosophers and then made to serve radically different purposes. The way I use it here is liberal. To every truth there corresponds a fact. Suppose, for instance, that it is a truth that all people are endowed by their Creator with inalienable rights to life, liberty, and the pursuit of happiness. Then it is a fact that all people are so-endowed. (I take no position on whether this correspondence is one-one or many-one.) In adopting this usage, I pay no particular epistemic or metaphysical compliment to something by deeming it a fact. For instance, I do not reserve the term “fact” for circumstances which are to be taken as data, as opposed, e.g., to matters of mere theory or opinion. Nor do I reserve it for circumstances which are irreducible or explanatorily basic. I employ this liberal notion for clarity of exposition. First, I wish to abandon the use of the abstract noun “modality” in favor of the more concrete “modal facts”. Second, I hope soon to bring our discussion down to Earth by talking about particular examples of modality. For instance, instead of keeping the discussion abstract, I will soon begin discussing the fact that Bush might have lost the 2000 presidential election. As the last sentence shows, the liberal notion of a fact provides a natural way to do this. I am therefore ignoring for the purposes of the present discussion the vast philosophical tradition that centers on the investigation of this or that notion of fact.} Here modal primitivism makes some negative claims: non-modal facts are no more basic or fundamental than modal facts;\footnote{This claim has two plausible readings: (1) most or all modal facts are as fundamental as any non-modal facts; and (2) some modal facts are as fundamental as any non-modal facts. Here and similarly for the rest of the paragraph, the second claim is intended.} modal facts are not somehow composed or constructed out of non-modal facts; modal facts are not to be reduced to, or explained in terms of, non-modal facts; they do not supervene on non-modal facts; they are
not “nothing over and above” non-modal facts; they do not have second-class
metaphysical status with respect to non-modal facts, but rather enjoy the same
metaphysical status; they are not dependent on non-modal facts.

Who would ever deny modal primitivism? Who would ever think, for in-
stance, that one could explain the fact that Bush might have lost the 2000
presidential election solely by reference to non-modal facts? Who would ever
think that such an evidently modal fact can be exhaustively explained with-
out adversion to notions of necessity and possibility? Who would think that
this fact is “nothing over and above” all the non-modal facts? The list of anti-
primitivists in the philosophical literature comprises some quite disparate views.
I will discuss only one example of anti-primitivism: a view called Conceptualism.
Conceptualism is quite popular; consideration of this representative provides a
glimpse of how widespread anti-primitivist views are. After attempting to ex-
plain this view, I will make the case in favor of modal primitivism itself. Finally,
I will consider an application of the primitivist outlook to a particular example
of a necessity.

1 Conceptualism

Saul Kripke argues at length in his seminal Naming and Necessity that neces-
sity is to be distinguished from both a priority and analyticity. Necessity is one
thing, and these notions are other things. Necessity is not to be reduced to or
explained in terms of such notions. Opposed to this view is a position called
Conceptualism. The Conceptualist admits such necessities as Kripke claims.
For instance, the Conceptualist admits with Kripke that it is impossible that
Elizabeth Windsor should have originated from gametes other than those from
which she actually originated. But the Conceptualist’s diagnosis of the ground
for these necessities is much different from anything Kripke might offer. The
Conceptualist says that modal facts are ultimately grounded in semantic and
logical relations among the concepts or words by which we represent them.
Modal facts are ultimately the products of the semantic and logical features of
our systems of representation. Hence we may expect such notions as a priori-
ity and analyticity to figure centrally in our fundamental account of modality,
bearing as they do on the semantic and logical features of our systems of repre-
sentation.
There is a paradigm case in the philosophical lore which sustains the Conceptualist position. It is necessary that no bachelors are married. Why can’t there be a married bachelor? The Conceptualist’s answer is familiar: there is a relation between the concepts bachelor and married in virtue of which anything that falls under the one does not fall under the other. It is a rule associated with the concept bachelor that anything which falls under the concept married just does not count as a bachelor.\footnote{There are reasons to doubt the general adequacy of the Conceptualist’s favored grounding for necessities. Kripke and Kaplan have argued, for instance, that the existence of such relations between words or concepts will not serve by themselves to ground necessities. To take a famous example from Kaplan, “I am here” is plausibly considered a truth in virtue of meaning, though it is not plausibly considered a necessity. Such counter-examples point us to a more fundamental difficulty with the Conceptualist’s view. The standard notion of analyticity used by Conceptualists defines it as truth in virtue of meaning (or conceptual content, or conceptual containment, etc.). Obviously this is a long way from necessary truth in virtue of meaning. Perhaps in order to preserve contact with the Conceptualist tradition, Kripke himself guarantees that analyticity implies necessity by stipulation: he stipulates that a sentence is analytic iff it is both necessary and true in virtue of meaning. Gareth Evans \cite{Evans} presents an attempt to save the Conceptualist viewpoint from this more fundamental difficulty by distinguishing two kinds of necessity. According to Evans, all of the counter-examples to the Conceptualist strategy are examples of “shallow necessity”, while “deep necessity” is more congenial to the Conceptualist’s strategy for grounding necessities. We will avoid this fray altogether by just granting for the sake of argument that the Conceptualist can provide an answer to the fundamental problem that also provides him an epicycle to do away with apparent counter-examples.}

Variants of the view favor talk of words or expressions over talk of concepts: the crucial relations according to these variants are between the meanings of the words “bachelor” and “married”. But such variations cleave nevertheless to a main theme: necessity is primarily the result of semantic and logical relations among representations, rather than relations among the things thereby represented.\footnote{Of course a single thing or type of thing may be represented by more than one word or concept. Where there are two expressions or concepts for a single thing, we may face a case in which the two expressions do not share all of their semantic relations to other expressions or concepts. For instance, the number 9 is the denotation of both “the successor of 8” and “the number of planets”. Arguably, these two expressions bear different semantic relations to the predicate “... numbers the planets.” Thus conceptualism all too often leads to a relativity thesis regarding modal properties of individuals: individuals do not bear modal properties by themselves; individuals bear modal properties only relative to a description. For instance, a proponent of this relativity thesis might claim that the number 9 bears the modal property necessarily numbers the planets under the description “the number of planets”, but not under the description “the successor of 8.” This little twist has consumed a lot of attention in the}
Part of Kripke’s strategy for distinguishing the modal notion of necessity from \textit{a priori} and analyticity is to produce examples of necessities that seem to be \textit{a posteriori}. For instance, Kripke argues that, given that Cicero and Tully are identical, they had to be identical. Similarly, he argues that Elizabeth Windsor could not have come from gametes other than those from which she actually came. If he is correct, then the Conceptualist’s paradigm case, “no bachelors are married”, is not representative of the entire class of necessities. The Conceptualist claims that the paradigmatic necessity is knowable \textit{a priori}, and his claim is very plausible. But Kripke shows that there are some other necessities for which the \textit{a priori} claim is implausible.

Suppose we think Kripke’s counter-examples are utterly convincing. Do they show that the Conceptualist is wrong? Usually Conceptualists claim that all necessities are knowable \textit{a priori}. Carnap [cite!] is an example. Kripke’s counterexamples, if convincing, are enough to reject these views. But one may accept that necessities are always to be grounded in relations among concepts without claiming that all necessities are knowable \textit{a priori}. One may be a Conceptualist while taking Kripke’s counterexamples on board.

Consider a view I shall call \textit{mixed conceptualism}. This position admits that there are necessary connections that are not knowable \textit{a priori}. For instance, though it is necessary that Cicero be identical to Tully, there is no \textit{a priori} demonstration that Cicero is identical to Tully. Cases like this, however, always involve two factors, according to the Mixed Conceptualist. First, there is a non-modal and non-demonstrable relation $\phi$ that obtains among certain individuals. Here, for instance, there is a non-modal relation, the identity of Cicero and Tully, that actually obtains, but does not do so demonstrably. There is no \textit{a priori} demonstration of the fact that Cicero is identical to Tully. Secondly, there is a general claim that the relation obtains necessarily if it does at all. In the case we are considering, there is the following general fact about identity: whenever the relation of identity actually obtains, it does so of necessity. There is a proof of this second fact, according to Kripke.\footnote{Of course the degenerate case in which $\phi$ is a one-place relation, \textit{i.e.} a property, is understood to be included here.} According to the mixed conceptualist, \textit{philosophical literature on the nature of necessity. We shall ignore it nevertheless. I shall here only advance (without argument) two points. First, this relativity thesis is not inevitable for the Conceptualist. Second, none of our objections to Conceptualism turn on its acceptance or rejection.}

\footnote{(Kripke, 1971). I take no stand on whether Kripke has actually proven the result. At any
the second factor is always \textit{a priori}. The second claim warrants the modalization of the empirical matter of fact reported by the first claim.

This position gives up the idea that necessity implies \textit{a priori}, but holds on to the idea that the modalization of empirical matters of fact to derive necessities implies \textit{a priority}. The mixed conceptualist strategy, in effect, is to factor each \textit{a posteriori} necessity into two claims: one is non-modal, but contributes the \textit{a posteriority}; the other is \textit{a priori} but contributes the necessity.

Kripke’s examples of \textit{a posteriori} necessities do not, however, exhaust his criticisms of views which, like Conceptualism, claim some strong link between \textit{a priority} and necessity. He points out that, whatever merits the Conceptualist’s general claims may have in this or that particular case, they are nonetheless extraordinary. The Conceptualist claims that, whenever we are presented with a necessity, there will always be some relations among the concepts used to express that necessity which undergird it. To remind ourselves of how surprising it would be if this turned out to be true, we can return to Kripke’s original explanation of the notion of necessity at hand.

We ask whether something might have been true, or might have been false. Well, if something is false, it’s obviously not necessarily true. If it is true, might it have been otherwise? Is it possible that, in this respect, the world should have been different from the way it is? If the answer is ‘no’, then this fact about the world is a necessary one. If the answer is ‘yes’, then this fact about the world is a contingent one. This in and of itself has nothing to do with anyone’s knowledge of anything. It’s certainly a philosophical thesis, and not a matter of obvious definitional equivalence, either that everything \textit{a priori} is necessary or that everything necessary is \textit{a priori}. (Kripke, 1980, p. 36)

The last two sentences contain an argument against there being too close a relationship between \textit{a priority} and necessity. The argument would be equally good if what were under discussion were there being too close a relationship between necessity and relations among concepts. Questions of necessity ask after the powers and potentialities of things. This in and of itself has nothing to do with anyone’s concepts or words for those things. So it is certainly a rate, it is generally conceded that we know this modalization claim \textit{a priori} if (1) it makes any sense at all (see n. 4); and (2) we know anything \textit{a priori} at all.
philosophical thesis, and no mere triviality, to claim that every necessity can be grounded in relations among concepts. The Conceptualist, mixed or otherwise, endorses this philosophical thesis. But why does he think it is true? Why does he think that there will always be a grounding for each necessity in relations among concepts?

An example indicates the extent of the Conceptualist’s optimism in this regard. J.L. Mackie has defended mixed conceptualism. Recall that, according to mixed conceptualism, in every case in which we face an *a posteriori* necessity claim, there will be a modalization premise claiming, with respect to a particular property φ, that anything which has φ has it of necessity. The mixed conceptualist claims that this modalization premise can in principle be known *a priori*. The *a posteriori* necessity can be derived from the modalization claim, together with non-modal *a posteriori* claims.

The claim that we can always find a modalization premise to fit the bill is extraordinary. To illustrate how strong it is, let’s take as our exemplar Kripke’s claim that Elizabeth Windsor could not have originated from gametes other than those from which she actually originated. Necessity of origin theses (*origin theses*, for short) like this one are the very examples of *a posteriori* necessities that Mackie discusses. The relevant modalization premise is, roughly, that anything *x* which has its origin in a certain thing *y* has its origin in *y* of necessity. Mackie proposes to ground this modalization premise in a relation between our concepts of identity and necessity. His approach has since been dubbed the branching times model for *de re* modality.

Questions about possibility are settled according to the branching times model by asking whether the history of the universe could have gone as it actually has, up to a point, and then diverged in a way that brought about the possibility in question. On one simple version of this framework, the possibilities for Elizabeth Windsor are given in all the ways the universe could have gone on after her advent. None of these histories, however, include her coming from other gametes. By the time of the divergence, it is too late for her to have

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7J. L. Mackie (1974). Mackie is disinclined to talk about relations among concepts, but the core of the view remains. He writes (Mackie, 1974, p. 560), “If such explanations [as Mackie proposes for various *a posteriori* necessities], are correct, it will follow that these *de re* modalities are, in a very broad sense, *de dicto* after all. Though these necessities apply to individual things and natural kinds... that they do so apply is primarily a feature of the way we think and speak, of how we handle identity in association with counterfactual possibility”.
had a different origin. There are possibilities for individuals included in earlier divergences, but none of these, according to the framework, are possibilities for Elizabeth Windsor; these divergences are too early to present possibilities for her. Nothing about this argument is particular to Windsor’s case, so the same result appears to hold in general. So the branching times model seems to provide a grounding for the general modalization premise.

Mackie holds the branching times model to be enshrined in the rules that govern our ordinary notions of possibility and identity. Suppose for the sake of argument he is correct. Suppose that, in virtue of the very meaning attaching to our concept of necessity, a property \( \phi \) is possible for Windsor just in case there is a way the universe could have diverged from actual history at a certain point in which she has \( \phi \). Mackie’s conceptualism will be incomplete if he cannot provide conceptualist groundings for facts about how the universe might go on from a certain point in its history. Suppose for the sake of argument that he can fill this gap.

His proposal for a conceptualist grounding of the modalization premise is still incomplete. Call the point in time after which divergences from actual history are relevant to the possibilities for Windsor her divergence point. The little argument from the branching model to the modalization premise assumed that Windsor’s divergence point is some time at or after her advent. By the time she comes on the scene, the argument went, it is too late for divergences from actual history to change her origins. Hence having different origins is not a possibility for her. A similar argument, however, will show that it is impossible for her to have arrived on the scene at a slightly different time or place. Likewise the weather at her advent would be a necessity for her if the assumption were warranted. These examples show that the assumption that the divergence point comes at or after her advent is implausible. But this assumption is crucial to the argument. Suppose we allowed the divergence point to precede her advent. This move solves one problem: nothing in the argument itself rules out divergences which result in her arriving on the scene at a different time or place. So far so good. But likewise nothing in the argument itself rules out divergences which result in her coming from different gametes, either.

Intuitively, there are some aspects of Elizabeth Windsor’s origin that could have been different. According to the origin thesis, there are some which could not. The branching times model does not provide the resources to mark this
distinction, and so cannot provide an adequate grounding for origin thesis. The branching times model lacks some essential ingredient to distinguish between the necessary and contingent features of Windsor’s origination. Conceptualism requires that the missing ingredient is to be found somehow in the semantic and syntactic relations among concepts. This an extraordinary claim. Does Mackie have any reason to think that it is true?

2 Motivating Mixed Conceptualism

Why is the Mixed Conceptualist so sanguine about there being relations among concepts that ground every necessity that comes our way? Perhaps she is moved by some powerful argument to the effect that her favorite epistemic properties, like a priority or informativity, are inextricably linked to necessity and possibility. A passage suggesting one such argument even appears in Naming and Necessity. Though we will not discuss such epistemological arguments here, the Mixed Conceptualist may be swayed by them. If she nevertheless is impressed by Kripke’s attack on the naive assimilation of necessity and a priority, then Mixed Conceptualism might seem a simple and convenient way out. Mixed Conceptualism gives her a way to admit informative a posteriori necessities while maintaining a powerful link between necessity and her favorite epistemic notions.

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8 Robert Stalnaker, for instance, has urged a close connection between informativity and possibility, by claiming that a sentence is informative to an individual iff it rules out some possibilities hitherto allowed by that individual’s totality of beliefs. [CITE]: THE O’Leary-CASE ARTICLE, “REVISITED”.

9 I will quote the passage here, without attempting to explain the argument. [CITE!]

Someone may well be inclined to argue as follows: ‘[...] I gather that Hesperus might have turned out not to be Phosphorus. What then can you mean when you say that such eventualities are impossible? If Hesperus might have turned out not to be Phosphorus, then Hesperus might not have been Phosphorus. And similarly for the other cases: if the world could have turned out otherwise, it could have been otherwise.’ (pp. 140-41)

10 I have characterized the conviction that there is a strong link between necessity and such epistemic notions as informativity and a priority as one way to Mixed Conceptualism. I will argue below that the mixed conceptualist nevertheless makes significant concessions to Kripke in the epistemology of necessity. Do not underestimate the extent of those concessions. In particular the identification of necessity and a priority can seem simple and natural by comparison to the Mixed Conceptualist’s position.
There is a more metaphysically-oriented argument, however. When faced with a question of necessity, we find appropriate the question of why things could not have been otherwise. Call this kind of challenge a Why-not challenge. Suppose for instance that we are faced with an origin thesis: Elizabeth Windsor could not have come from a certain pair of Australian gametes. The response “Why could she not have come from them? What excludes so-originating from her possibilities?” poses a why-not challenge. The argument starts from the conviction that the answer to a Why-not challenge cannot ultimately rest on modal claims. The grounding for a necessity cannot be modal “all the way down.” Consider a simple example. Suppose, when someone asks why Windsor could not have been come from those Australian gametes, that we provided the answer: “She could not have come from those gametes because, as a matter of necessity, any person who comes from those gametes would have been identical to a certain person $P$, and Windsor is not identical to $P$.”\(^{11}\) Suppose we accept that $P$ is (or would have been) distinct from Windsor. The response still seems to miss its mark. The claim of necessity does not satisfy the original demand, for we may always pose a Why-not challenge again: why couldn’t some individual distinct from $P$ have been produced from the Australian gametes? What excludes originating a distinct person from those gametes’ possibilities?

The argument for Conceptualism takes for granted, then, this first premise, that necessities cannot ultimately be grounded in modal facts. This means that we will ultimately need to ground necessities in non-modal facts. This is evidently a form of anti-primitivism. But which facts, involving which things and which relations, will serve our need? To return to our example, the fact that Windsor did not originate from the Australian gametes seems inadequate by itself. The fact that this non-modal relation obtains does not serve by itself to ground the fact that it had to. The non-modal relation needs help.

The Conceptualist seeks some other non-modal facts to fit the bill. She sees that, in other cases, non-modal relations among concepts seem to do the trick. She sees, for instance, that the fact that there are actually certain relations between the concepts bachelor and married serves to ground the necessity that no bachelor be married. Since the non-modal relations among the things mentioned in the origin thesis will not do the trick, the Conceptualist turns to

\(^{11}\)This response is an application of the Sufficiency approach to grounding the necessity of origin thesis at hand [CITE].
non-modal relations among the concepts or words used to express the origin thesis. Further, she sees no other actual facts that will do. So her optimism stems from two convictions: (1) that necessities must ultimately be grounded in non-modal facts; and (2) that relations among concepts or words are ultimately needed to ground necessities.

Articulating this anti-primitivist argument allows us to better understand the relation between traditional Conceptualism and Mixed Conceptualism. From one point of view, these different varieties of Conceptualism are radically diverse. Traditional Conceptualism holds that all necessities were grounded solely in relations among concepts which could be apprehended \textit{a priori}. Mixed Conceptualism rejects this claim.

In \textit{Naming and Necessity}, Kripke criticized the traditional viewpoint along two fronts. First, as we have already seen, Kripke notes that the standard ways of explaining the notions of \textit{a priority} and necessity do not make the claim that all necessities are \textit{a priori} trivial. The notions seem at first glance to be different, even if they turn out to be co-extensive.\footnote{This argument, appearing at (Kripke, 1980, p. 36), was quoted above.} Whether someone knows something \textit{a priori} is a matter of how he came to know it, what his warrant for it is, what cognitive powers he brought to bear in order to acquire that knowledge, etc. What’s necessary is a matter of what the powers and potentialities of things are. There is no reason at first glance to think that what someone can know \textit{a priori} should correspond exactly to the necessities. Second, Kripke attempted to provide counterexamples. We have already mentioned some of Kripke’s examples of necessary \textit{a posteriorities} (Kripke, 1980, p. 47, 100-101, 108, \textit{passim}). He also produces examples of contingent \textit{a priorities}. He famously defends, for instance, the \textit{a priority} for the originators of the word “metre”,\footnote{The spelling here is deliberately faithful to the way that the originators of that word spelled it.} of the statement, regarding the stick \(S\) they used to establish the length designated by “metre” and the time \(t_0\) at which the dubbing was accomplished, that \(S\) is one meter long at \(t_0\) (Kripke, 1980, p. 54-6).

The traditional Conceptualist’s identification of \textit{a priority} and necessity is subject to both criticisms. A measure of how radically the Mixed Conceptualist departs from this traditional idea is that he escapes both of Kripke’s actual criticisms construed narrowly, and one of the two construed more broadly. Since the Mixed Conceptualist does not claim that \textit{a priority} and necessity are co-
extensional, he may enthusiastically accept Kripke’s counter-examples. He even escapes the letter of Kripke’s original attack: he can admit that the notions of *a priori* and necessity are evidently different, and that it would take a hefty philosophical argument to establish otherwise. So, from the standpoint of the epistemology of necessity, the distance between the traditional Conceptualist and the Mixed Conceptualist is vast. The move from traditional Conceptualism to Mixed Conceptualism is in this respect revolutionary.

But the two views can both be motivated by the anti-primitivist argument we rehearsed above. Both views have the same strategy for grounding necessities in non-modal facts. From the present point of view, then, Mixed Conceptualism seems a way to accommodate Kripke’s radical insights regarding the relation between necessity and *a priori*, while still keeping necessities grounded in relations among concepts. It is a retreat in the epistemology of necessity, but a firm stand in the metaphysics of necessity.

3 Toward a primitivist metaphysics of modality

Conceptualism is the result of thinking both that only non-modal relations among things can ground necessities and that only relations among concepts will manage this feat. The second idea is special to Conceptualism. But Conceptualism shares the first idea, that necessities are ultimately to be explained in non-modal terms, with many anti-Conceptualists. The idea that necessities must be grounded in non-modal facts has a tight grip on contemporary thinking about necessity. It suffers at each turn from an unjustified optimism that the non-modal materials for explaining an apparently modal fact will always be available. (In addition to this general problem, of course, specific problems apply to the various anti-primitivist analyses of modality proposed.) But its very prevalence can make it seem inevitable. How, then, can we resist it?

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14 We have argued above in effect that he does not escape the spirit of the criticism. He must still make his optimistic claim that, whenever we have an *a posteriori* necessity, there is an *a priori* modalization premise undergirding it. At first glance the necessitation premise does not seem to have anything to do with anybody’s knowledge of anything.

15 David Lewis is an avowed anti-primitivist. We can also discern anti-primitivist leanings in the essence theories of Kit Fine and Joseph Almog [CITE!]. Hence anti-primitivism unites such divergent thinkers as Carnap, Fine, Lewis, and Almog.

16 David Lewis (Lewis, 1986, p. 150ff) even takes it to be an objection to an opposing view that it must take some modal notions as primitive.
I will argue that we should accept that the grounds for necessities may be modal all the way down. Modal claims are not to be explained in non-modal terms. Conceptualism should be rejected because its optimism is unwarranted. The same goes for views which reject Conceptualism but remain anti-primitivist. So I will articulate a way of thinking of modal facts which does not attempt to explain them in non-modal terms. I will show that any anti-primitivist view confronts a problem in explaining how non-modal facts ground modal facts. Finally, I will sketch an example of an essentially modal grounding for a particular necessity.

4 Facts and more facts

We have already seen that modal primitivism is the view that there are some necessities and possibilities which cannot be grounded or explained in entirely non-modal terms. Some modal facts, including some necessities, are modal “all the way down.” Well, if these facts are not at bottom non-modal, what are they? The view is really quite simple. Modality is part of the fundamental furniture of the world. Modal facts are not second-class facts, in need of grounding in a more solid non-modal reality. Rather, they are just more facts, as solid as any fact can be. There are non-modal facts. And there are also modal facts. There are facts about what Bush wore, what he said, and whether he won. And there are also facts about what he might have worn, what he might have said, and whether he had to have won. The modal facts are not reducible to, made of, or explained by the non-modal facts. Rather, they are just more facts, alongside the non-modal ones.

It is perhaps obvious from our explanation of the primitivist position that it is stronger than a simple anti-reductionism. An anti-reductionist about modality holds that modal claims are not reducible to non-modal claims. Many anti-primitivists propose to reduce modal claims to non-modal ones, providing general recipes for going from an evidently modal claim to its non-modal basis. The Conceptualist positions we have reviewed provide examples. But reduction is only one way to relegate some facts to second-class, derivative status. One might resist reductive views and still be an anti-primitivist. One might claim, for instance, that though there is no general recipe for reducing modal claims to non-modal ones, each individual modal fact is composed of, or entirely
explained by, some group of non-modal facts. One might, alternatively, claim that the realm of modal facts is fixed by the non-modal ones. In order to justify primitivism we need to argue, not just that modal facts cannot be reduced by some general recipe to non-modal facts, but that there are individual modal facts which resist explanation solely in non-modal terms.

The heart of primitivism is the idea that modal facts are not to be explained in non-modal terms. This position is denied by what is often called a *supervenience claim*. Philosophers often express such a claim by saying that, e.g., the modal facts supervene on the non-modal facts. I do not here have time to review all of the detailed philosophical work on the notion of supervenience. Suffice it to say that there is a varied menagerie of views that all get this label. I propose therefore to avoid the terminology altogether, except when articulating anti-primitivist positions by invoking their slogans. Instead, I will focus on some paradigm cases in which the terminology is applied.

Before I turn to the defense of primitivism, however, it will be useful to have a more vivid grasp of what it claims. Analogies help. Consider two realms of fact. In the first realm, we have facts about the *macroscopic* sizes and shapes of ordinary physical objects: facts about sizes and shapes that might be measured by the rulers, measuring tapes, plumb-lines, protractors, levels and calipers one might find in a dentist’s office or a carpenter’s shed. Such facts include, for instance, facts about the thickness of the top of this table, about our respective heights, and the like. Notice that we are not talking about the sizes, shapes and vibrations of molecules, atoms, electrons, or quarks. Our second realm of fact regards the colors and transparencies of things. My window is mostly transparent. The Hope Diamond is a brilliant and luminous blue. The snow fields of Mont Blanc are brilliant white. Neither of these realms of facts is reducible to the other. The size and shape facts are not somehow composed of the color and transparency facts, nor are they explicable solely in terms of color and transparency, nor are they fixed by those facts. Likewise, the color and transparency facts are not somehow composed of the size and shape facts, nor are they explicable solely in terms of size and shape, nor are they fixed by those facts. We simply have two separate realms of facts.

Nevertheless, neither realm of facts is totally disconnected from the other. I won’t speculate about what connections there are generally between the two macroscopic realms, but here are some particular connections which immedi-
ately suggest themselves. The slice of ham of which my father was so proud one day was transparent because it was so thin. If the cover of my copy of “On the Plurality of Worlds” were much thinner, it would be translucent, and not so dark and saturated a shade of blue as it is. The Blue Ridge Mountains are blue, I am told, in part because they are so big. So this is our model: realms of fact that are intimately connected with one another, but where neither has any sort of ontological priority over the other.

The primitivist view I here advocate claims that there are three salient points of similarity to the case of modality. First, as in the analogy, modal facts and non-modal facts simply comprise two realms of facts. Neither realm is “prior to” or “dependent on” the other. Second, the things involved in those facts are the same in both realms. Mountain ranges, book covers, and slices of ham have both color and macroscopic size and shape properties. Likewise, the bearers of non-modal properties are also the bearers of modal properties. The same Bush who won the 2000 election might have lost it. Third, there are nevertheless necessary relations between the two realms of facts. For instance, there is a necessary relation between the non-modal fact that Bush won and the modal fact that being the winner is a possibility for him. Likewise, there is a necessary relation between the modal fact that Bush had to have been identical to Dubya and the non-modal fact that Bush is identical to Dubya. Probably more substantive relations also obtain. Bush might have lost the 2000 election in part because the election was so close. Perhaps a thing might have had sensations only if it in fact has a psychology of some sort. Perhaps the converse is true: something has a psychology of some sort only if it might have had sensations of some sort. Such relations are the stuff of philosophy. Nothing requires the modal primitivist to deny them. In short, one may be a modal primitivist without claiming that modal facts “float free” of non-modal facts.

The anti-primitivist says that our analogy provides entirely the wrong picture of the relation between modal and non-modal facts. She supplies a different analogy which she thinks provides a more accurate picture. Consider a rectangular array of pixels. One can make, e.g., face-shapes by filling in some of the positions in the array with pixels and leaving others blank.\(^\text{17}\) Consider all of

\(^{17}\text{Can there be an arrangement of pixels that make a face-shape without also making a picture of a face? This depends on the appropriate metaphysics for pictures. Since our anti-primitivist need not take a position on this matter, I speak only of the shapes, rather than the pictures, which result when the pixels are filled.}\)
the ways of arranging pixels so that the result is a face-shape. (There will be borderline cases, of course. It might be very hard to say in a particular case whether what we have is a face-shape, but they make no difference here.) Here we have two realms of facts: facts about how the pixels are arranged, and facts about the face-shapes.

The anti-primitivist highlights three features of this case. First, we have two levels of ontology. Two kinds of things are involved here, the pixels and the shapes. There are properties proper to each level. The pixels have their positions and spatial relations to one another. The shapes have their width, area, are closed or open, etc.

Second, the first level, the pixel level, is metaphysically favored over the second level, the shape level. The shape level depends on the pixel level in three ways: for its composition, its determination, and its explanation. Each of the shapes is composed of pixels. The pixels are the pieces out of which the shapes are made: one can make a shape only by putting some pixels together. Also, once we establish the facts at the first level, facts about which pixels are placed where, the facts at the second level, e.g., facts about whether the shape is open or closed, are fixed. It is impossible, for instance, to place pixels twice in exactly the same way and come up in the first case with a shape that is closed and in the second case with a shape that is not. Finally, the features at the first level are supposed exhaustively to explain the features at the second level. A closed face-shape has a certain area, for instance, because its pixels are arranged as they are. Nothing else is required to complete the explanation.

These dependence relations indicate that a description of the situation solely in terms of which pixels are placed where is a complete description of both realms of facts in three ways. First we need appeal only to things mentioned in the description to say what things at all levels of the ontology are made of. Everything either is a pixel or is made of pixels. Second, the description fixes both realms of facts. Once the description is satisfied, there is nothing more to do, e.g., to make the face-shapes closed. Finally, the description the description is explanatorily complete in that it provides all the information used in any explanation of facts at either level.

In each case, the dependence relation is asymmetric. The first level does not similarly depend on the second. The pixels are not made up of the shapes. And the features of the face-shapes do not explain the positions and spatial
relations among the pixels. Perhaps a little more controversial is the claim that the pixel-facts are not fixed by the shape-facts. There may arguably be little differences in the arrangement of pixels (e.g. a single pixel might be placed just one position to the right of where it actually is placed) that do not register as a difference in the size, area, and orientation of the face-shape that results.

Most of what we have said so far about the relations between the pixels and the face-shapes they make would apply as well to the relations between pixels and, e.g., squares. But there is a last lesson the anti-primitivist wishes to draw from the analogy which she could not if what were at issue were squares. Arguably the existence and features of squares are reducible by a simple recipe to a certain kind of arrangement of pixels. It is easy to specify exactly the conditions under which a placement of pixels will form a square in terms of the spatial positions and relations among pixels in the grid. It is also easy to define properties of the squares that result, e.g. their perimeter and area (in units of pixels and square pixels, respectively) solely in such terms. So there seems to be a reduction of square-facts to pixel-facts in the offing. Not so, according to the anti-primitivist, in the case of face-shapes. There is no simple recipe which specifies exactly the conditions under which a placement of pixels will make a face shape. There are lots of ways to make a face shape. They can be open or closed. Some of them contain a nose-shape, some of them omit one. There seems to be no simple way of specifying all these ways of making a face-shape in terms solely of which positions in the array to fill with pixels. Likewise, given a face-shape, we cannot reduce many of its features to spatial relations among pixels. Attempts to offer a simple reduction, for instance, of one face-shape’s being wider than another in terms of the distance between the left-most and right-most pixels, or in terms of some statistical measure of how scattered along the horizontal axis the pixels are, seem certain to come to grief. (For a quick and dirty illustration, imagine two congruent face-shapes, one drawn normally, the other in reverse video.) The anti-primitivist plausibly maintains that all other attempts are similarly doomed.

The anti-primitivist concludes from the example that ontological dependence does not require reducibility. The overwhelmingly plausible description of the relation between pixels and face-shapes is that the shapes are ontologically dependent on the pixels, without being somehow reducible to them. There are some familiar philosophical slogans, many metaphorical, that convey this idea:
the face-shapes are “nothing over and above” the pixels; face-shape facts are “constituted by” pixel facts and “supervene” on them. The pixel facts are the “supervenience base” in terms of which the face-shape facts are explained. Nevertheless, the shape-facts are neither definable in terms of, nor reducible to, pixel-facts.

The anti-primitivist’s position suggests a picture according to which the world is divided into layers. At the bottom layer are the entities, properties, and facts on which all the entities, properties, and facts at higher layers depend. This picture seems to offer the anti-primitivist the opportunity to have her cake and eat it too. With the anti-reductionist, she can affirm the reality and distinctive character of the upper layers. With the reductionist, she can affirm the utter dependence of the upper layers on the lower. In the words of one famous propounder of such a conception, this position seems to offer a “metaphysical free lunch.”

I will not dispute the general claim that ontological dependence does not require reducibility. I will not dispute that in some cases at least, we can have such a “metaphysical free lunch”. I will not here attempt any further to explain or clarify the metaphors and slogans by whose means the claim is advanced in particular cases. But neither will I object to their employment per se. For the record, I think the example of the pixels and the face-shapes demonstrates the evident truth of the general claim, and I believe that the general claim has philosophically interesting and illuminating applications. I will argue, however, that the anti-primitivist parts ways with the truth when she maintains that the model of the pixels and shapes fits the case of the relation between non-modal facts and modal facts.

The problem is that the example of pixels and face-shapes does not seem at all suitable as an illustration of the relation between modal and non-modal facts. The picture requires from the outset that we have two levels of ontology: two kinds of items, with properties uniquely appropriate to each kind. In the case of the faces and pixels, we have on one hand the pixels, with their positions and spatial relations, and on the other the face-shapes, with their orientations, relative widths, etc. Only given such a split ontology do we have the materials with which to formulate the three claims of metaphysical dependence. There must be two kinds of items if we are to maintain that items at the higher level

\[18\text{[CITE!] David Armstrong somewhere.}\]
are composed of items at the lower level. There must be two kinds of items if we are to maintain that facts involving items and properties at the higher level are determined by facts involving items and properties at the lower level. And there must be two kinds of items if we are to maintain that facts involving items and properties at the higher level are exhaustively explained by facts involving items and properties at the lower level.

It is thus no accident that, in every standard application of supervenience claims, the second-class facts are restricted to a small sliver of the items in the ontology. It is claimed for instance that psychological facts supervene on physical facts. The realm of the psychological is limited: electrons, galaxies, tables and paramecia do not have psychological properties. It is claimed that moral facts supervene on physical, psychological, and social facts. Again, the realm of the moral is limited: most things do not have moral properties. Examples are almost as variegated as the views of analytic philosophers, but they all have in common the assumption that the facts accorded second-class metaphysical status have a very limited domain.

Modal facts do not fit the mold. The application of the pixels-shapes example to modality requires that there be a level of ontology below which there are no modal facts. There must be a kind of entity which does not enjoy modal properties. This is contrary to the evident metaphysical facts. Modality pervades the world; modal properties are no less widespread than non-modal ones. There is no kind of entity which does not enjoy modal properties. Ordinary things like tables, monkeys, valleys, Elizabeth Windsor, and the Antarctic ice sheet have modal properties to be sure. But much smaller things like molecules, atoms, electrons, and even quarks also have modal properties. Consider a particular quark. It has certain properties (though I have no idea what they are). And it either might have lacked one of those properties, or it had to have it. So it has a disjunctive modal property. And either way, whether it might have lacked the property or not, it also has a non-disjunctive modal property. We do not find a kind of thing that lacks modal properties by fleeing to the level of

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19There may be philosophers who would urge that mathematical entities like numbers do not enjoy modal properties. But unless such a philosopher would implausibly propose mathematical entities as the “supervenience base” for modality, the alleged counter-example is irrelevant to the present case. (The possibility is suggested by David Lewis’s exclusion of sets from being parts of worlds, [CITE!]. I do not know whether Lewis believed that sets have modal properties not inherited from the modal properties of their members.)
physical micro-structure. Especially large things, including supernovas, black holes, galaxies, and superclusters also have modal properties. So the fugitive kind that lacks modal properties is not to be found at the macro-structural level either. Items of different logical type also have modal properties. For instance, properties are themselves bearers of modal properties. The property of being a tiger might have had more instances. The property of being a natural number could not have had had fewer instances. The individual concept (if there is such a thing) the inventor of bifocals might have determined a different individual. Indeed, we can be sure, whenever something has a certain property, that a fortiori having that property is a possibility for it.

Faced with the pervasiveness of modality, the anti-primitivist we are considering may qualify her position. She may admit that modality is pervasive, but that in each case a thing’s having certain modal properties is grounded in some congeries of non-modal property-instantiations. On this revision the upper level of the ontology and the lower level share the same items; Everything has modal properties, so everything is an item at the upper level. The difference between the two levels lies solely in the nature of the properties involved. At the lower level we help ourselves only to the non-modal properties of the items. At the upper level we allow ourselves to speak of the modal properties of those same things. This move evidently abandons the claim that the example of pixels and face-shapes provides a model for the relation between modal and non-modal facts. More particularly, it gives up the idea that the items at the upper level are composed of the items at the lower levels.\textsuperscript{20} But the anti-primitivist will continue to insist that facts at the lower level determine and exhaustively explain facts at the higher level.

Now we have a view without a picture or example to illustrate its application. That makes the view difficult to understand, much less motivate or assess. Nevertheless we can understand the view well enough to see some difficulties it faces. The first difficulty centers on the challenge of explaining what kind of determination is involved. In the case of the pixels and face-shapes, we saw that the facts about the pixels determined the facts about the face-shapes in the sense that it is impossible to place pixels twice in exactly the same way and

\textsuperscript{20}Perhaps composition could be saved if we admit that an item is composed of itself. Then every item at the upper level is composed of a single item, itself, at the lower level. But this sense of composition is narrow and uninteresting, and obviously will not amount to an asymmetric claim of ontological dependence.
come up with face-shapes with relevantly different properties. This explanation sounded modal; the occurrence of “impossible” is at any rate suspicious. Consider the similar explanation of the determination claim in the case at hand: “it is impossible that the non-modal facts should be exactly the same, while the modal facts differ.” This says that it is a matter of necessity that a difference in the modal facts be accompanied by a difference in the non-modal facts. Everyone who holds this view faces a why-not challenge: why isn’t it possible for the non-modal facts to be the same while the modal facts differ? But the anti-primitivist faces a special challenge. For here we have a particular modal truth. The anti-primitivist thinks that each such truth is determined and exhaustively explained by some congeries of non-modal facts. So her answer to the why-not challenge must ultimately be non-modal.

There are many examples of non-modal determination *cum* explanation available. There is first logical determination. A full specification, for instance, of the facts regarding which individuals have which properties determines as a matter of logic the quantificational facts. It is a matter of logic that two situations which are the same with respect to which things are green and which things are not green are also the same with respect to whether everything is green. There is also conceptual determination. Arguably, any two situations which are the same with respect to facts about marriage and gender are the same with respect to facts about bachelorhood. The facts about who is married and what the genders of the individuals are determines as a conceptual matter who the bachelors are. There is also determination by the mathematical facts. The facts about which pure sets there and what their membership relations are determines as a matter of mathematical fact whether the Continuum Hypothesis is true.\(^{21}\) There is also determination by natural laws. The laws governing gravitation require that any two situations in which the masses and distances among bodies in space are the same are also the same with respect to gravitational forces.

The problem is that none of these kinds of non-modal explanation and determination seem at all suited to the case of modality. Cases of logical and conceptual determination are typically accompanied by reductions, but no reduction is here offered. Also, few anti-reductionists would claim that the de-

\(^{21}\)I take no position as to whether mathematical determination can be reduced to logical or conceptual determination.
pendence of the modal on the non-modal was a matter of logical or conceptual truth. When it comes to mathematical determination, the very pervasiveness of modality, the fact that everything that has non-modal properties also has modal properties, seems to take the claim that modal facts are grounded in non-modal ones beyond the purview of mathematical determination. Modality is not a mathematical notion; modal facts are not mathematical facts; and there is no reason to think that their alleged determination by non-modal facts is a mathematical matter. Finally, the claim that the determination is a matter of natural law runs afoul of the consideration that no such law has ever been proposed, explained, investigated, or even suggested by natural scientists, whose business it is to investigate the laws. This is in contrast, for instance, to the case of the relation between psychological facts and their alleged biological and neurological basis. Discovering laws by which the biological and neurological facts determine the psychological facts is the aim of some ongoing empirical research. Perhaps there is some non-modal kind of determination which we have overlooked. Perhaps there is a case to be made that our very short survey of non-modal determination underestimated the suitability of the claims to the case of modality. If so, then the challenge for the anti-primitivist is to produce the missing insight, and explain how the non-modal facts determine the modal ones without appealing to primitive modality.

I have articulated a primitivist picture according to which there are necessary relations between modal and non-modal facts. Modal facts, on the picture I am here presenting, do not therefore “float free” of non-modal facts. But modal primitivism itself allows an even stronger commitment. Modal primitivism is consistent with the claim that non-modal facts determine modal facts. For the modal primitivist can claim that the determination is the ordinary, primitive, modal kind. The primitivist repudiates the idea that the modal facts can all be exhaustively explained in non-modal terms. If the determination of the fact that Bush might have lost is a matter of further modal fact, then no exhaustive non-modal explanation of this possibility is on offer. The anti-primitivist incurs the challenge of producing a non-modal grounding for the modal determination claim because she is committed to the claim that every particular modal claim has a non-modal explanation. She has to explain the modal determination claim in non-modal terms. She cannot beg off that no general recipe is available for reducing modal claims to non-modal ones, because the challenge calls for no
general recipe. There is a particular modal fact at hand: the fact that it is impossible that two situations alike with respect to the non-modal facts should differ with respect to the modal facts. The challenge is not to provide a general recipe for reducing modal facts to non-modal ones. It is to exhaustively explain this particular modal fact in non-modal terms.

The challenge we have posed for the anti-primitivist trades on the difficulty of working out in detail a non-modal grounding for a particular modal claim in a particular case. The particular case we chose was the anti-primitivist’s evidently modal explanation and determination claim. But the challenge generalizes beyond this particularly important case. A weakness in the anti-primitivist’s position is that there is no case in which the dependence of the modal on the non-modal has been worked out in any detail. Take the fact that Bush might have lost in 2000. Exactly which non-modal facts does this fact depend on? Which non-modal facts determine and exhaustively explain this claim? How do they manage this feat? Many theorists content themselves with mentioning non-modal facts which seem relevant. The election was close, the balance was in the actual case tipped by a single vote in the Supreme Court, and so on. But anti-primitivism requires more: to make the anti-primitivist case, we must not only assemble all or the relevant facts; we must see how to actually carry out the explanation. We should not sign on to the general claim that non-modal facts exhaustively explain modal facts without being privy to a single example of such an explanation.

In this respect, the reductionist seems to have an advantage: the proposed reduction will tell you which non-modal facts do the metaphysical work, and the meta-theoretical remarks about the kind of reduction offered – conceptual, logical, or otherwise – provide a head-start on the question of how those non-modal facts determine and explain the modal ones. For instance, one who proposes the possible-worlds analysis as a non-modal analysis of the meanings of modal locutions can tell us that the non-modal fact which grounds the fact that Bush might have lost is that there is a world in which “Bush lost” is true. And the fact that the analysis is supposed to be of the meanings of modal

\[22\] We may allow for some hand-waving, if the theorist assembles some of the relevant facts in a way which makes it clear exactly which facts are relevant, and then outlines the explanation so that we can see its general thrust. I have done no more than this on behalf of the Conceptualist account of “no bachelors are married”. But no anti-primitivist to the best of my knowledge has actually done even this much.
locutions indicates that these facts determine the modal fact by virtue of the very meanings of the words used to state it. At least it is tolerably clear what the proposed explanations are supposed to be.

But this clarity comes at the cost of plausibility. We are now in a position to articulate a problem that any anti-primitivist, reductionist or not, faces in articulating the relation between modal and non-modal facts. Any sort of anti-primitivism requires that the modal facts be determined and exhaustively explained by the non-modal facts. We ask, how do the non-modal facts determine the modal facts? If the anti-primitivist answers that non-modal facts determine modal facts in virtue of the meanings or logic of the terms in which the modal facts are expressed, then the view is implausible. If she claims instead that non-modal facts determine modal facts as a matter of mathematical fact, then the view is also implausible, since modal facts are not mathematical facts and there is no reason to think that they are mathematically determined by non-modal facts. The claim that the determination is natural is also implausible, given that there is no scientific evidence for the relevant natural laws on offer. Supposing that non-modal facts do determine modal facts, we seem to want to characterize the determination as modal: the non-modal facts determine the modal facts in that it is impossible that the modal facts should have differed while the non-modal facts remain the same. But the anti-primitivist cannot ultimately rely on a characterization of the determination at hand as a matter of modal fact.

Non-reductive anti-primitivism is a view without a picture to aid our understanding. Without such a backing picture, its claims seem implausible. Reductive anti-primitivism faces an analogous challenge. Both views require that modal facts be determined by non-modal facts, but neither view can provide a plausible account of how they are so determined. Perhaps someone will meet the challenge that both views face tomorrow. Perhaps a new kind of determination will come to light. In the meantime, however, the weight of reasons seems to be all on the primitivist side. Anti-primitivists have a lot of work to do before they earn their anti-primitivism.
5 A primitive modal grounding for a particular necessity

The doctrine of modal primitivism may seem prey to the objection that it objectionably leads to quietism about modal facts. I have held that modal facts are not determined and explained by non-modal facts. And of course there is no other kind of fact to determine and explain modal facts. So modal facts must resist grounding in other facts. They are brute; they are what they are, and nothing more can be said by way of grounding them. This will seem objectionable in the face of the evident appropriateness of why-not challenges. Consider once more our origin thesis as an example: it is impossible that Elizabeth Windsor should have come from a certain pair of Australian gametes, distinct from those from which she actually came. Surely this claim could not be a matter of basic, brute fact, without anything more to be said in the way of explanation.

Quietism of this radical sort is objectionable, and modal primitivism would be objectionable if it carried the implication of quietism. But the charge of quietism is based on a couple of confusions. First, nothing about modal primitivism requires that modal facts in general resist grounding in other facts. First, of course, modal primitivism claims only that some modal facts are primitively modal; so, for all that we’ve said, some modal facts are not. For instance, consider again the modal fact that it is necessary that no bachelors be married. The standard Conceptualist grounding of this necessity in non-modal facts about the concepts of bachelorhood and marriage is left open by modal primitivism. I am skeptical, but my skepticism is not required by modal primitivism. So modal primitivism does not require that we universally abjure explaining some modal facts, and even some necessities, in non-modal terms.

This still leaves some residue of modal facts that resist grounding in non-modal terms. Can’t the charge of quietism still be leveled about this elect class? Not really. Primitivism does not require that modal facts of the elect class cannot be grounded at all; it only requires that whatever grounds they have be at least partly modal. To take a facile example, modal primitivism does not require us to abjure grounding the conjunctive fact that Bush might have lost the 2000 election and Nixon might have lost the 1968 election in the facts reported by the conjuncts. More interestingly, it does not require us to abjure

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23See n. 3 for reasons for skepticism.
grounding the fact that Bush might have lost the 2000 election in such facts as 
that the election was extremely close, that Bush might have said something to 
alienate voters a few days before the election, that alienating the voters might 
have cost him votes, etc.

Still, modal primitivism does seem to commit us to there being some ultimate 
modal facts which are not grounded in any other facts, modal or not.24 Some 
among the ultimate, ungrounded, brute facts of the world are modal. Let us 
grant that modal primitivism implies this limited sort of quietism. This form of 
quietism poses no special problem for modal facts, since by the same token some 
of the brute facts of the world will be non-modal. But the objection has provided 
no reason to endorse a general prejudice against ultimate, ungrounded modal 
facts, and in favor of ultimate, ungrounded non-modal facts. In short, once we 
are clear on what sort of so-called quietism is required by modal primitivism, it 
does not seem at all objectionable.

Still, despite the general defects of the quietism objection considered in the 
abstract, there still seems to be something to the spirit of the charge when we 
come to the particular case at hand. For surely we would not want our origin 
thesis to be among the basic, brute modal facts. It faces a why-not challenge: 
why couldn’t Windsor have come from those gametes? Can we deliver an a 
modal grounding that does not face a similar challenge? We have already seen 
one attempt to ground this origin thesis in modal facts. It turned out not to 
be adequate. Resting the origin thesis on the claim that any person who comes 
from those Australian gametes would have been identical to a certain person 
P just raises another why-not challenge. We still would need some grounding 
for the alleged fact that someone else could not have come from those gametes. 
Can we do better? Can we provide a grounding for the origin thesis that gets 
us at least a little way out from under the why-not challenge?

I will argue that we can. In other work25 Guy Rohrbaugh and I have pro-

24 Technically, even this conclusion is not required by modal primitivism, since nothing we 
have said requires the grounding relation to be well-founded. But let us accept for the sake 
of argument the claim that grounding of the sort we are discussing has to come to an end 
somewhere.

25 See Rohrbaugh and deRosset, “A New Route to the Necessity of Origin”, deRosset, 
“Production and Necessity”
vides a reason to believe our origin thesis about Elizabeth Windsor, but also that it grounds (in the metaphysically weighty sense we have been using from the beginning) the origin thesis. The key claim will be that the grounding thereby provided is thoroughly modal. I will provide facts which determine and explain the fact that Windsor could not have originated from those Australian gametes, and which are not themselves grounded in further, non-modal facts.

Before diving in, it is important to keep in mind that my purposes here are not argumentative, but illustrative. I do not invoke the argument to provide convincing reasons to believe the origin thesis under consideration here; nor do I mean to provide defenses of the premises of the argument. My intention is rather to provide a single example of a thoroughly modal grounding for a modal fact evidently in need of some grounding or other. Importantly, I am not here defending the view that this grounding provides a counter-example to Conceptualism or any other form of anti-primitivism. I have already stated the case against anti-primitivism. Make no mistake: I believe the origin thesis; I believe that the argument I provide here gives us a reason to believe it; and I also think the origin thesis provides a pretty good counter-example to Conceptualism, marred perhaps by the difficulty of understanding and assessing it. But my aim here is not to defend these views. Rather, I aim here to defeat once and for all the quietism objection by illustrating the non-quietist potential of modal primitivism.

Let’s review the non-modal facts relevant to Windsor’s origination: she came from certain gametes, which we shall call the royal gametes; she did not come from the Australian gametes we are considering; and the royal gametes are pairwise distinct from the Australian ones. The crucial premise of the argument for our origin thesis is an independence principle:

\[(\text{IND}) \quad \text{If it is possible that there be a person } P \text{ who originates from those Australian gametes, then it is also possible both that that very person } P \text{ originate from those Australian gametes, and that Windsor originate from her actual gametes.}\]

\[(\text{IND})\] says that anyone \(P\) who might have originated from a certain pair of gametes, those Australian ones, could have originated from those very gametes even though Windsor originates from the royal gametes. (The principle is in-

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Defenses of these claims are made in the work cited in 25.
tended to be hip-deep in *de re* modality: the two pairs of gametes involved bear the modal properties whether or not they would have been Australian or royal in such a case, and independently of our describing them as such.) If the origination of $P$ from the Australian gametes is possible at all, then it is *com* possible with the origination of Windsor from the royal gametes. In this sense, (IND) claims that the originations do not compete: it is possible for both to bear their several fruits. For the purposes of forestalling irrelevant complications, let’s understand the relation of origination to be exclusive: A person (exclusively) originates from a pair of gametes just in case she originates from exactly those gametes, and no other.

The argument also requires two ancillary premises. The first is the familiar necessity of distinctness, which we will state with respect to the relevant instance:

\[ \text{(ND)} \] If the pair of Australian gametes and the pair of royal gametes are distinct, then they are necessarily distinct.

The second is a principle of origin uniqueness:

\[ \text{(OU)} \] It is not possible for a person $P$ to both originate from a certain pair of gametes, and also to originate from a distinct pair of gametes.

This second principle says that one person cannot have two origins. This is to be taken in the sense that the claim that the 2004 presidential election cannot have two winners is to be taken: the principle allows that some other pair might have originated the individual in question; what’s excluded is co-origination. (OU), then, can be taken to express the exclusivity of the origination relation we broached above. Neither of these principles is open to much serious doubt. The money is riding on (IND).

Here, in brief, is the argument. Suppose for the purposes of *reductio* that the origin thesis is false. That means that it is possible that Windsor originate from those Australian gametes. (IND) implies that it is possible both that she originate from the Australian gametes and that she originate from the royal gametes. (ND), together with the actual distinctness of the gamete-pairs, guarantees that, in such a case, Windsor originates from distinct pairs of gametes. So our supposition has led us to the conclusion that it is possible for a single woman, namely Elizabeth Windsor, to have two distinct origins. But this is
precisely what (OU) says cannot happen. Hence our supposition for the purposes of reductio is false. Windsor could not have originated from the Australian gametes.

This argument provides an example of a thoroughly modal grounding for the modal fact reported by our origin thesis. The explanation of the impossibility of Windsor’s originating from the Australian gametes starts with the modal fact expressed by (IND). The production of Windsor from the royal gametes may have a wide variety of modal dependencies. But it is not dependent on what happens to the Australian gametes, even if what happens to those gametes is that they are used to produce a person. The argument shows how the explanation proceeds from the independence of person-production to the origin thesis. Ultimately, the necessity of origin is grounded in the mutual independence of productions from distinct origins. Of course, (ND) and (OU) are also indispensable elements of the explanation. The validity of the argument shows that this explanation is accompanied by determination. The modal facts we use to explain the necessity at hand are also facts which determine that it should obtain.27

Does this alleged explanation make any progress at all against the charge of quietism? Recall that the alternative grounding proposed earlier rested the origin thesis on the claim that any person who comes from those Australian gametes had to be identical to a certain person P. We found this proposal inadequate in the face of the quietism objection: it rests one necessity claim in need of explanation on another. A symptom of this difficulty is the appropriateness of a why-not challenge. Why couldn’t the Australian gametes have produced someone else? Notice that the Independence-based alternative rests the origin thesis, not on another controversial necessity claim, but on a generalized possibility claim. Obviously (IND) itself needs discussion and motivation, and perhaps even requires some explanation. Considerations of space have forced us to be mercilessly brief. But we have enough at least to see that we do not have

27Notice that, should it turn that Elizabeth Windsor might have originated from the Australian gametes, then the argument will similarly provide a grounding for the failure of (IND) this would require. The trick of the argument for present purposes is that it forces a choice between two necessities: we must either accept the impossibility of Windsor’s originating from the Australian gametes, or accept the non-compossibility of her origination from the royal gametes with her origination from the Australian gametes. In both cases, the difficult and controversial part of the grounding will be a possibility claim.
a descending chain of groundings of controversial necessities on more controversial necessities. In that sense, our proposed grounding does not succumb to the charge of quietism.

References


